



Up to date: evidenze della letteratura internazionale riguardo indicazioni e risultati della chirurgia laparoscopica del retto

Matteo Franceschi M.D.

# Chirurgia laparoscopica del retto

## stato dell'arte su risultati a breve e lungo termine



- **SHORT-TERM OUTCOME**
- **LONG-TERM OUTCOME**
- **RAPPORTO OUTCOME/CASE LOAD**
- **TEAM MULTIDISCIPLINARE**

# Short-term outcomes

## FONTI

### METANALISI:

- **AZIZ ET AL. 2006**

*Annals of Surgical Oncology*, 13(3): 413–424  
DOI: 10.1245/ASO.2006.05.045

Laparoscopic Versus Open Surgery for Rectal Cancer:  
A Meta-Analysis

- **OHTANI ET AL. 2011**

*J Gastrointest Surg* (2011) 15:1375–1385

A Meta-analysis of the Short- and Long-Term Results  
of Randomized Controlled Trials That Compared  
Laparoscopy-Assisted and Conventional Open Surgery  
for Rectal Cancer

### ACS NSQIP 2011:

**Short-Term Outcomes after Laparoscopic-Assisted  
Proctectomy for Rectal Cancer: Results from the  
ACS NSQIP**

### RCT:

**Laparoscopic versus open surgery for rectal cancer (COLOR II):  
short-term outcomes of a randomised, phase 3 trial** *Lancet Oncol* 2013; 14: 210–18

Martijn H G M van der Pas, Eva Haglind, Miguel A Cuesta, Alois Fürst, Antonio M Lacy, Wim C J Hop, Hendrik Jaap Bonjer, for the COLOrectal cancer  
Laparoscopic or Open Resection II (COLOR II) Study Group\*

**Open versus laparoscopic surgery for mid or low rectal cancer  
after neoadjuvant chemoradiotherapy (COREAN trial):  
short-term outcomes of an open-label randomised  
controlled trial**

Randomized Trial of Laparoscopic-Assisted Resection of  
Colorectal Carcinoma: 3-Year Results of the UK MRC  
CLASICC Trial Group

JOURNAL OF CLINICAL ONCOLOGY

*Lancet Oncol* 2010; 11: 637–45

Sung-Bum Kang, Ji Won Park, Seung-Yong Jeong, Byung Ho Nam, Hyo Seong Choi, Duck-Woo Kim, Seok-Byung Lim, Taek-Gu Lee, Dae Yong Kim,  
Jae-Sung Kim, Hee Jin Chang, Hye-Seung Lee, Sun Young Kim, Kyung Hae Jung, Yong Sang Hong, Jee Hyun Kim, Dae Kyung Sohn, Dae-Hyun Kim,  
Jae Hwan Oh

# Short-term outcomes

## Caratteristiche degli studi

*Annals of Surgical Oncology*, 13(3): 413–424  
DOI: 10.1245/ASO.2006.05.045

### Laparoscopic Versus Open Surgery for Rectal Cancer: A Meta-Analysis

Omer Aziz, MRCS, BSc, Vasilis Constantinides, MBBS, Paris P. Tekkis, MD, FRCS,  
Thanos Athanasiou, PhD, FECTS, Sanjay Purkayastha, MRCS, BSc,  
Paraskevas Paraskeva, PhD, FRCS, Ara W. Darzi, FRCS, KBE, and  
Alexander G. Heriot, MD, FRCS

**Endpoints :** operative outcomes, postoperative recovery, and early and late adverse events.

in this analysis.<sup>39</sup> Twenty studies published between 1993 and 2004 that matched the selection criteria and compared laparoscopic rectal cancer surgery with open rectal cancer surgery for rectal cancer were therefore included in this meta-analysis. These included a combined total of 2071 subjects, of which 909 (44%) underwent laparoscopic rectal cancer surgery and 1162 (56%) underwent open rectal cancer

#### Major weaknesses:

- Patients not matched for tumour grade, stage and adjuvant treatment, all factors affecting outcomes
- Only 3 prospective randomized trials
- Only 1 trial focused on rectum (CLASICC)
- Surgeons varying experience -> CLASICC reported conversion rate: 34%!

# Short-term outcomes

## Caratteristiche degli studi

J Gastrointest Surg (2011) 15:1375–1385  
DOI 10.1007/s11605-011-1547-1

ORIGINAL ARTICLE

### A Meta-analysis of the Short- and Long-Term Results of Randomized Controlled Trials That Compared Laparoscopy-Assisted and Conventional Open Surgery for Rectal Cancer

Hiroshi Ohtani • Yutaka Tamamori • Takashi Azuma •  
Yoshihiro Mori • Yukio Nishiguchi • Kiyoshi Maeda •  
Kosei Hirakawa

A significant heterogeneity between studies was observed only for short-term outcomes, including operative time, duration of hospital stay, time to oral diet, and cost of surgery. In the long-term period, we found no significant

We identified 12 papers reporting results of randomized controlled trials that compared laparoscopic and open surgery for rectal cancer.<sup>3–18</sup> The characteristics of each randomized controlled trial are presented in Table 1. Our meta-analysis included 2,095 patients with rectal cancer; of these, 1,096 had undergone laparoscopic surgery, and 999 had undergone conventional open surgery. Short-term and

- Only **studies in English** were included, which may have increased the risk of language bias.
- A basic assessment of trial **quality** was made. Half of included studies were of low quality. It appeared that the authors did not take into account study quality when they interpreted the results of the meta-analyses.
- Statistical **heterogeneity** was assessed and appropriate methods were used to pool the results.

# Short-term outcomes

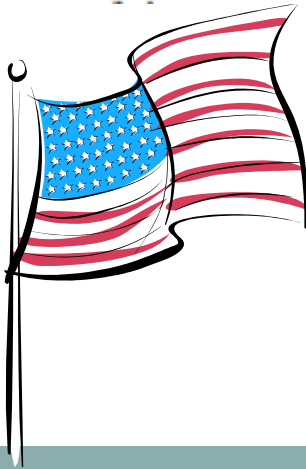
## Caratteristiche degli studi



### Short-Term Outcomes after Laparoscopic-Assisted Proctectomy for Rectal Cancer: Results from the ACS NSQIP

David Yu Greenblatt, MD, MSPH, Victoria Rajamanickam, MS, Andrew J Pugely, MD, Charles P Heise, MD, FACS, Eugene F Foley, MD, FACS, Gregory D Kennedy, MD, PhD, FACS

We identified 5,420 patients who underwent proctectomy for rectal cancer from 2005 to 2009 and otherwise met inclusion criteria for the study. LAP was used in 1,040 (19.2%), and 4,380 patients had open resection. Table 1



#### Major limitations:

- **Voluntary program (not a valid sample)**
- **No stratification for stage**
- **No volume/outcome**
- **NON RANDOM ASSIGNMENT OF PATIENTS TO TREATMENT**



# Short-term outcomes

## Caratteristiche degli studi

### COLOR II

**Methods** A non-inferiority phase 3 trial was undertaken at 30 centres and hospitals in eight countries. Patients (aged  $\geq 18$  years) with rectal cancer within 15 cm from the anal verge without evidence of distant metastases were randomly assigned to either laparoscopic or open surgery in a 2:1 ratio, stratified by centre, location of tumour, and preoperative radiotherapy. The study was not masked. Secondary (short-term) outcomes—including operative findings,

*Lancet Oncol 2013; 14: 210–18*



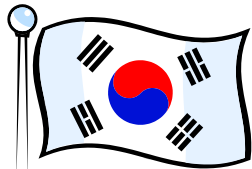
1103 pts  
699 lap  
operations



exclusion of patients with T3 rectal cancer within 2 mm from the endopelvic fascia or T4 cancers. Therefore, the findings in this study are not applicable to all patients with rectal cancer.



**Laparoscopic and open procedures weren't necessarily performed by the same surgeon**



### COREAN trial

**Methods** Between April 4, 2006, and Aug 26, 2009, patients with cT3N0–2 mid or low rectal cancer without distant metastasis after preoperative chemoradiotherapy were enrolled at three tertiary-referral hospitals. Patients were randomised 1:1 to receive either open surgery (n=170) or laparoscopic surgery (n=170), stratified according to sex and preoperative chemotherapy regimen. Short-term outcomes assessed were involvement of the circumferential

*Lancet Oncol 2010; 11: 637–45*

340 pts  
50% lap operations

Our study had some limitations. First, we did not collect data on the immediate QoL outcomes at 1 week or 1 month after surgery, when QoL scores are lower and differences between the two groups might have been more pronounced. Representative trials have shown that most QoL scale show improvement by 2–3 months after surgery.<sup>24</sup> Second, there were differences in the distribution of TRG and after-pretreatment pathological N classification

between the two groups, which should be adjusted for long-term oncological analysis. Third, the 15% non-inferiority margin for sample size is large, but has been used in previous studies<sup>1</sup> and was based on practical constraints because of the number of patients with cT3N0–2 mid or low rectal cancer that can accrue in three hospitals

The sample size for this study was based on a non-inferiority design. The expected 3-year DFS for the open

# Short-term outcomes

## Caratteristiche degli studi

Randomized Trial of Laparoscopic-Assisted Resection of  
Colorectal Carcinoma: 3-Year Results of the UK MRC  
CLASICC Trial Group

VOLUME 25 · NUMBER 21 · JULY 20 2007

JOURNAL OF CLINICAL ONCOLOGY

This was a multicenter, randomized, controlled, open, and parallel group trial comparing laparoscopic-assisted surgery with conventional open surgery in patients suitable for right, left, or sigmoid colectomy, AR or APR. Details of

Performed early on the learning curve:

- high conversion rate (33% -> 18%)
- CRM + ( 12% vs 5% ) -> DFS and OS = a 7 anni



# Short-term outcomes



## 1. PERIOPERATORI

- Tempi chirurgici
- Numero di linfonodi
- Perdite ematiche stimate
- Positività margine  
circonferenziale (CRM)
- Tasso di conversione

## 2. ESITI

- Mortalità peroperatoria
- Durata degenza
- Deiscenza anastomotica
- Canalizzazione
- Ripresa dell'alimentazione

# Short-term outcomes

## 1. PERIOPERATORI

Study	operative time		Number of LN harvested		blood transfusion/estimated blood loss		Positive CRM		Conversion rate
	lap	open	lap	open	lap	open	lap	open	
Aziz et al.	<b>Lap &gt; 40,18 min</b>		no significative difference		no significative difference		9,5%	10,8%	NA
Ohtani et al.	<b>Lap &gt; 40,96 min</b>		no significative difference		<b>Favours laparoscopy &lt; 123mL</b>		no sign diff		NA
ACS NSQIP	<b>242 min</b>	<b>219 min</b>	NA	NA	no significative difference		NA	NA	NA
CLASICC	<b>180 min</b>	<b>135 min</b>	NA	NA	NA	NA	12%	6%	34%
COREAN	<b>245 min</b>	<b>197 min</b>	18	17	<b>200 mL</b>	<b>217,5 mL</b>	2,9%	4,1%	1,20%
COLOR II	<b>240 min</b>	<b>188 min</b>	13	14	<b>200 mL</b>	<b>400 mL</b>	10%	10%	17%

# Short-term outcomes

## 2. ESITI

Study	Perioperative mortality		Time to stoma functioning		Feeding solids		LOS (days) Length osp stay		Anastomotic leak rate	
	lap	open	lap	open	lap	open	lap	open	lap	open
Aziz et al.	3,1%	3,2%	< 1,72 days		< 1,52 days		Lap < 4,74		8,4%	6,7%
Ohtani et al.	no significative difference		NA	NA	NA	NA	Lap < 3,61		no significative difference	
ACS NSQIP	0,6%	1,1%	NA	NA	NA	NA	5	7	no significative difference	
CLASICC	4%	5%	NA	NA	6 days	6 days	11	13	NA	NA
COREAN	NA	NA	NA	NA	85h	93h	8	9	1,2%	0%
COLOR II	1%	2%	NA	NA	NA	NA	NA	NA	13%	10%

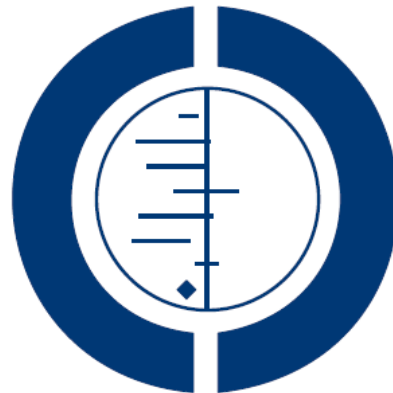
# Short-term outcomes

## Laparoscopic versus open total mesorectal excision for rectal cancer (Review)

2008

### Objectives

To evaluate whether there are any relevant differences in safety and efficacy after elective LTME, for the resection of rectal cancer, compared with OTME.



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80 studies were identified of which 48 studies, representing 4224 patients, met the inclusion criteria. Methodological quality of most of the included studies was poor; three studies were grade 1b (individual randomised trial), 12 grade 2b (individual cohort study), 5 grade 3b (individual case-control study) and 28 grade 4 (case-series). As only one RCT described primary outcome, 3-year and 5-year

disease-free survival rates, no meta-analyses could be performed. No significant differences in terms of disease-free survival rate, local recurrence rate, mortality, morbidity, anastomotic leakage, resection margins, or recovered lymph nodes were found. There is evidence that LTME results in less blood loss, quicker return to normal diet, less pain, less narcotic use and less immune response. It seems likely that LTME is associated with longer operative time and higher costs. No results of quality of life were reported.

# Long-term outcome

Scarse evidenze tuttavia...



Cochrane 2012 : laparoscopic surgery for cancer of the upper rectum is feasible.

*Long term results of COLORECTAL cancer resection*

Metanalisi: Ohtani et al.

Overall recurrence

Local recurrence

Disease-free survival at 5 years after surgery

Distant metastasis

NO SIGN  
DIFF

CLASICC trial 2012

*Colorectal*

Study	number of cases		Overall Survival		DFS (70 months)		Local Recurrence (10 years)		Distant Metastasis (10 years)	
	lap	open	lap	open	lap	open	lap	open	lap	open
CLASICC	189	87	no sign diff		no sign diff		no sign diff		no sign diff	

# Long-term outcome



## Long-Term Morbidity and Oncologic Outcomes of Laparoscopic-Assisted Anterior Resection for Upper Rectal Cancer: Ten-Year Results of a Prospective, Randomized Trial

Simon S. M. Ng, F.R.C.S.Ed.(Gen.) • Ka Lau Leung, M.D., F.R.C.S.(Edinb.)  
Janet F. Y. Lee, M.D., F.R.C.S.Ed.(Gen.) • Raymond Y. C. Yiu, F.R.C.S.Ed.(Gen.)  
Jimmy C. M. Li, F.R.A.C.S. • Sophie S. F. Hon, F.R.C.S.Ed.(Gen.)

DISEASES OF THE COLON & RECTUM VOLUME 52: 4 (2009)

**METHODS:** From September 1993 to October 2002, 153 patients with upper rectal cancer were randomly assigned to receive either laparoscopic-assisted (n = 76) or open (n = 77) anterior resection. Patients were last followed up in December 2007. Long-term morbidity, survival, and disease-free interval were prospectively recorded. Data were analyzed by intention-to-treat principle.

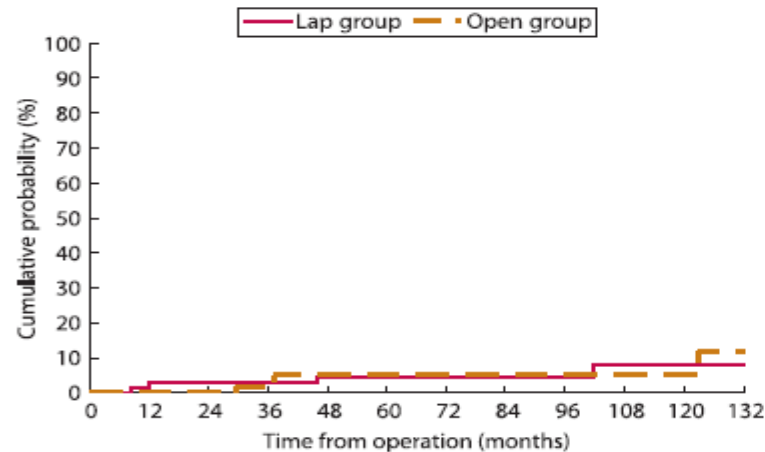


# Long-term outcome

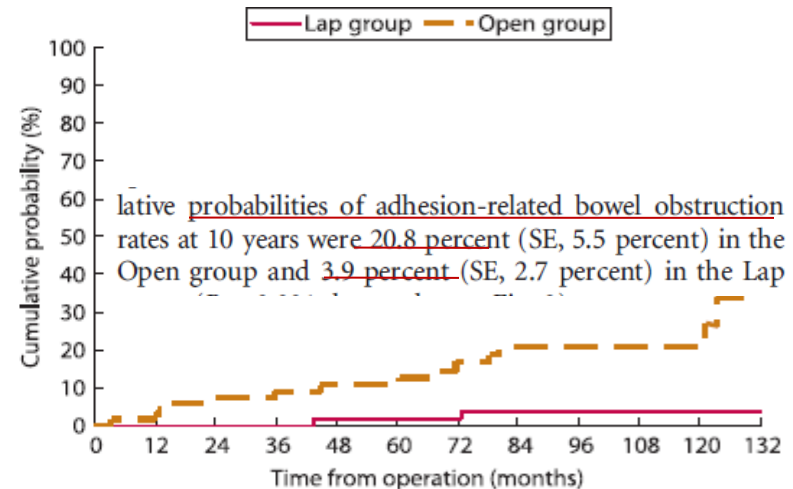
**TABLE 4. Crude incidence of long-term morbidity**

	Lap group (n = 74)	Open group (n = 74)
Adhesion-related bowel obstruction	2 (0)	14 (5)
Incisional hernia	4 (4)	5 (2)
Parastomal hernia	1 (1)	0
Rectovaginal fistula	1 (1)	0
Total number of patients with long-term morbidity (%)	8 (10.8%)	19 (25.7%)
Total number of patients requiring operation for long-term morbidity (%)	6 (8.1%)	7 (9.5%)

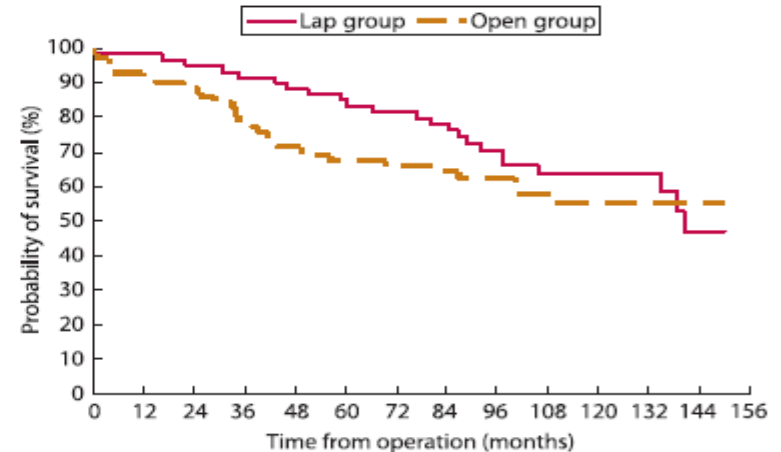
Patients with operative mortality (2 in the Lap group and 3 in the Open group) were excluded from analysis.  
Data in parentheses are number of patients requiring reoperation unless otherwise indicated.



**FIGURE 4.** Cumulative probability of incisional hernia ( $P = 0.520$ , log-rank test).



**FIGURE 3.** Cumulative probability of adhesion-related bowel obstruction ( $P = 0.001$ , log-rank test).

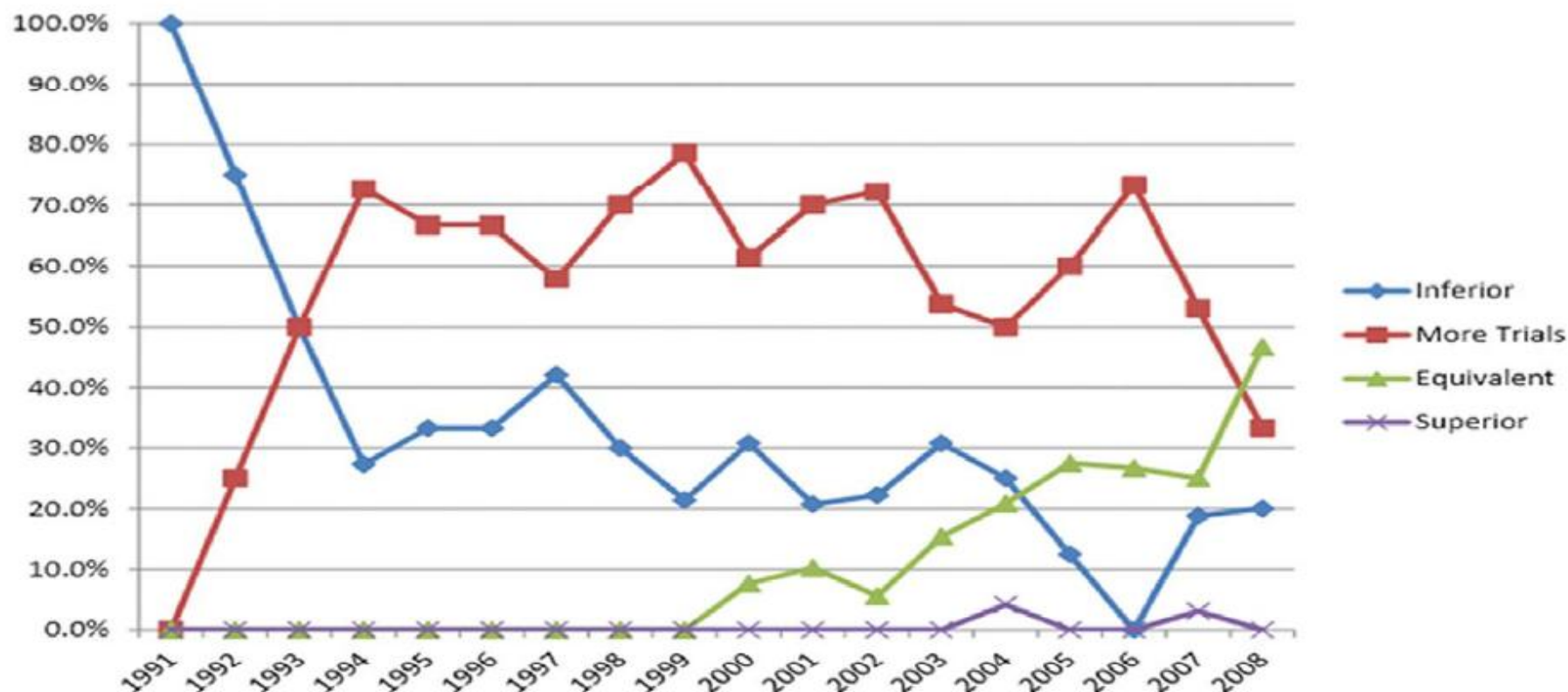


**FIGURE 5.** Overall survival after curative resection ( $P = 0.303$ , log-rank test).

# Expert Opinion on Laparoscopic Surgery for Colorectal Cancer Parallels Evidence from a Cumulative Meta-Analysis of Randomized Controlled Trials

Guillaume Martel<sup>1\*</sup>, Alyson Crawford<sup>1</sup>, Jeffrey S. Barkun<sup>2</sup>, Robin P. Boushey<sup>1</sup>, Craig R. Ramsay<sup>3</sup>, Dean A. Fergusson<sup>1</sup>

**1** Department of Surgery, Department of Epidemiology & Community Medicine, and Ottawa Hospital Research Institute, The Ottawa Hospital, University of Ottawa, Ottawa, Ontario, Canada, **2** Department of Surgery & Division of Clinical Epidemiology, McGill University, Montreal, Quebec, Canada, **3** Health Services Research Unit, University of Aberdeen, Aberdeen, Foresterhill, United Kingdom



**Figure 5. Temporal summary of expert opinion in the literature pertaining to laparoscopic surgery for rectal cancer.**  
doi:10.1371/journal.pone.0035292.g005



# *National Institute for Health and Clinical Excellence*

## **Recommendations**

- Laparoscopic (including laparoscopically assisted) resection is recommended as an alternative to open resection for individuals with colorectal cancer in whom both laparoscopic and open surgery are considered suitable.
- Laparoscopic colorectal surgery should be performed only by surgeons who have completed appropriate training in the technique and who perform this procedure often enough to maintain competence. The exact criteria to be used should be determined by the relevant national professional bodies. Cancer networks and constituent trusts should ensure that any local laparoscopic colorectal surgical practice meets these criteria as part of their clinical governance arrangements.
- The decision about which of the procedures (open or laparoscopic) is undertaken should be made after informed discussion between the patient and the surgeon. In particular, they should consider:
  - the suitability of the lesion for laparoscopic resection
  - the risks and benefits of the two procedures
  - the experience of the surgeon in both procedures.

## GUIDELINES

# Laparoscopic extraperitoneal rectal cancer surgery: the clinical practice guidelines of the European Association for Endoscopic Surgery (EAES)

*Laparoscopic surgery for middle and low rectal cancer can be recommended under optimal conditions (expert surgeons, expert centres, selected patients, excluding T4). (85.7% [Consensus]; GoR B: 85.7% [Consensus])*

The vast majority of the panel would recommend the laparoscopic approach for rectal cancer surgery. Still, upcoming results from large randomised trials are awaited to strengthen the evidence for improved short-term results and equal long-term results in comparison with open surgery.





## Laparoscopic Proctectomy for Curable Cancer

The American Society of Colon and Rectal Surgeons (**ASCRS**) and the Society of Gastrointestinal and Endoscopic Surgeons (**SAGES**) recognize that laparoscopic proctectomy may be an alternative to traditional resection of benign disease involving the rectum. The absence of five-year survival data makes it premature to endorse laparoscopic proctectomy for curable cancer.

Laparoscopic proctectomy must follow traditional surgical principles and standards including adequate mesorectal excision and the achievement of appropriate clear margins.

It is only appropriate to perform laparoscopic proctectomy for curable cancer in an environment where the outcomes can be meaningfully evaluated until laparoscopic approaches have been shown to be as efficacious as open approaches. The ASCRS and SAGES encourage the development of properly designed studies to evaluate the safety, efficacy, and benefits of this approach.

The ASCRS and SAGES consider laparoscopic proctectomy to be within the expertise of trained surgeons who focus on the treatment of rectal cancer. Development of this expertise should include observation of procedures, laboratory experience and graduated clinical responsibility as mentioned in published guidelines<sup>1,2</sup>.

1. *Guidelines for Laparoscopic Resection of Curable Colon and Rectal Cancer*. SAGES publication #32
2. *ASCRS Practice Parameters for the Management of Rectal Cancer (Revised)*. *Dis Colon Rectum* 2005;48:411-423.

# The best is yet to come...



- COLOR II Trial: long term outcome
- Randomized Controlled Trial to Evaluate Laparoscopic Surgery for Colorectal Cancer: Japan Clinical Oncology Group Study JCOG 0404 (2005)
- Prospective randomized non inferiority trial – laparoscopic vs open surgery for rectal cancer ACOSOG-Z6051 American College of Surgeons Oncology Group (2008)



# Rapporto risultati/volumi

Studi discordanti!

## Workload and surgeon's specialty for outcome after colorectal cancer surgery (Review)

Archampong D, Borowski D, Wille-Jørgensen P, Iversen LH

### Results for rectal cancer

- significant association between high volume hosp and better 5 years DFS
- significant association between high volume hosp and lower rates of permanent stomas
- no difference in operative

2012



Overall quality of the evidence was low as all included studies were observational by design. In addition there were discrepancies in the definitions of caseload and colorectal specialist. However ethical challenges associated with the conception of randomised controlled

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# Rapporto risultati/volumi



EJSO xx (2013) 1–8

## No difference between lowest and highest volume hospitals in outcome after colorectal cancer surgery in the southern Netherlands

F.N. van Erming<sup>a,\*</sup>, L.N. van Steenberghe<sup>a</sup>, W.T. van den Broek<sup>b</sup>, H.J.T. Rutten<sup>c,d</sup>,  
V.E.P.P. Lemmens<sup>a,c</sup>

<sup>a</sup> Eindhoven Cancer Registry, Comprehensive Cancer Centre South, P.O. Box 231, 5600 AE Eindhoven, The Netherlands

<sup>b</sup> Department of Surgery, St. Anna Hospital, Bogardeind 2, 5664 EH Geldrop, The Netherlands

<sup>c</sup> Department of Surgery, Catharina Hospital, P.O. Box 1350, 5602 ZA Eindhoven, The Netherlands

<sup>d</sup> Department of Surgery, Maastricht University Medical Centre, P.O. Box 5800, 6202 AZ Maastricht, The Netherlands

<sup>e</sup> Department of Public Health, Erasmus MC University Medical Centre, P.O. Box 2040, 3000 CA Rotterdam, The Netherlands

Accepted 14 August 2013

### Dubbi

- High volume hospitals ( $\geq 130$ ) less T1 and more T4
- High volume hospitals more comorbidities
- High volume hospitals more preop CRT and less postop RT
- 23% of patients with locally advanced rectal cancer (LARC) diagnosed in a low volume centre was referred to a high volume centre

# QUALE ESPERIENZA PER IL CHIRURGO?

## Laparoscopic versus open surgery for the treatment of colorectal cancer: a literature review and recommendations from the Comité de l'évolution des pratiques en oncologie

[Mélanie Morneau](#), MSc,\* [Jim Boulanger](#), PhD,<sup>†</sup> [Patrick Charlebois](#), MD,<sup>‡</sup> [Jean-François Latulippe](#), MD,<sup>§</sup> [Rasmy Loungrath](#), MD,<sup>||</sup> [Claude Thibault](#),

MD,<sup>\*\*</sup> and [Normand Gervais](#), MD<sup>††</sup>, For the Comité de l'évolution des pratiques en oncologie

Can J Surg. Oct 2013; 56(5): 297–310.

One prospective and 3 retrospective trials evaluated the impact of surgeon experience on oncologic outcomes following rectal cancer resection.

.....operative duration decreased significantly with the number of interventions performed.

.....Park and colleagues observed a plateau after **90 interventions** followed by a decrease in operative duration...

....Ito and colleagues reported that operative duration decreased from 228 to 179 minutes after more than **40 interventions**.....

All 4 trials also showed a significant decrease in postoperative morbidity as the surgeon gained more experience (after 30–60 interventions had been performed..)

# Dati AOUP (base dati SDO 2011-7/2013)

Diagnosi principale Like "154\*"

Codice procedura Like "486\*" Or Like "485\*" Or Like "484\*" Or Like "4835" and like "5421" or like "003\*"

	2011				2012				2013				2011-13						
	tot	lap	rob	APR	tot	lap	rob	APR	tot	lap	rob	APR	tot	lap		rob		APR	
chirurgia Bucciatti	64	44	0	10	73	60	0	9	43	39	0	9	180	143	79%	0	0	28	15%
chirurgia A	22	4	8	6	29	3	8	12	19	6	6	4	70	17	24%	20	29%	22	31%
chirurgia B	11	7	0	2	10	4	0	2	3	1	0	0	24	12	50%	0	0	4	17%
chirurgia C	13	6	0	5	10	3	0	1	13	5	0	2	36	14	39%	0	0	8	22%
chirurgia D	18	8	0	1	4	3	0	1	4	4	0	1	26	15	58%	0	0	3	20%
chirurgia E	4	0	0	1	4	0	0	3	2	0	0	0	10	0	0	0	0	4	40%
AOUP	132	69	8	25	130	73	8	28	84	55	6	16	346	201	58%	20	6%	69	20%

# Ruolo del team multidisciplinare



## **International Preoperative Rectal Cancer Management: Staging, Neoadjuvant Treatment, and Impact of Multidisciplinary Teams**

Knut M. Augestad • Rolv-Ole Lindsetmo • Jonah Stulberg • Harry Reynolds •  
Anthony Senagore • Brad Champagne • Alexander G. Heriot • Fabien Leblanc •  
Conor P. Delaney • International Rectal Cancer Study Group (IRCSG)



**2010**

**Survey involving 123  
international experienced  
colorectal surgeons**



among the respondents is high: 93% of the responding surgeons have experience with rectal cancer treatment for more than 5 years, and 35% have experience for more than 20 years (Table 2). Thus, in our opinion the respondents

# Ruolo del team multidisciplinare



**Table 1** Guideline recommendations for radiologic T staging and neoadjuvant treatment of rectal cancer [2, 6-8, 10, 11]

	NCCN USA 2009	World Congress 2007	French Guidelines 2007	Norwegian Guidelines 2008	ESMO 2008	Danish Guidelines 2009
<i>Neoadjuvant treatment</i>						
T1-2, N0	No neoadjuv treatment		<u>MDTs significantly influence preoperative decision-making (Table 6). Interestingly, regular MDT meetings significantly influence decisions on choice of staging modality, neoadjuvant treatment, and several other critical factors in the preoperative planning of rectal cancer treatment. We believe that regular MDT meetings will improve guideline adherence and quality of rectal cancer care, as</u>			No neoadjuvant treatment
T3, N0 or T any, N1-2 (stage II or III)	RCT					RCT midrectal T3 with CRM <5 mm. All low rectal T3
T4	RCT					RCT to mid and low T4
CRM	NA	NA				See T3
			Radiation or RCT when CRM <1 mm	CRM <3 mm RCT	NA	

NCCN National Comprehensive Cancer Network, ERUS endoscopic rectal ultrasound, CRM circumferential margin, NA no information, RCT chemoradiotherapy



# Referto RM strutturato



Esame eseguito con tecnica 2D e 3D previa introduzione rettale di soluzione idrica. Si evidenzia neoformazione rettale di cui si descrivono i seguenti reperti:

Sede (retto alto, medio, basso): retto alto

Estensione longitudinale: 68mm

Coinvolgimento parietale (ore 1-12): circonferenziale

Spessore massimo: 12mm

Stenosi del lume (<50%; >50%): >50%

Distanza tra margine distale della lesione e muscolo pubo-rettale: 67mm

Estensione dell'invasione extramurale: 5mm

Morfologia infiltrativa (nodulare/infiltrante): infiltrante alle ore 3-4

Distanza minima tra margini extramurali della lesione e fascia mesorettale: 14mm alle ore 4 con adesione alla fascia mesorettale.

Rapporti con muscoli elevatori (nessun contatto/contatto/infiltrazione): nessun contatto

Rapporti con i vasi extramurali (nessun contatto/contatto/infiltrazione): infiltrazione

N. Linfonodi mesorettali / distanza dalla fascia mesorettale: almeno 3 linfonodi di 1-4mm in sede presacrale

# REFERTO ECOGRAFICO STRUTTURATO

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Pisa **DATA**

Sig. **COGNOME NOME** data di nascita

## ECOGRAFIA TRANS RETTALE 3D

Eco rettale eseguito con sonda rotante 360° 2050 ed ecografo Pro Focus BK Medical.

Esame eseguito in decubito laterale sinistro per restadiazione di lesione del retto recentemente sottoposta a trattamento chemio- radioterapico.

A circa 100 mm dal margine anale, a circa 60 mm dal margine superiore del muscolo puborettale, si reperta la neoformazione nota, che si estende cranialmente per circa 30mm da ore 12 a ore 2. La lesione appare interessare la parete del viscere a tutto spessore, con interessamento del tessuto perirettale per circa 3 mm. Si apprezzano multipli linfonodi perilesionali il cui diametro massimo misura 9 mm.

uT3bN+

Dr. Riccardo Balestri



### **REFERTO ISTOLOGICO**

**Data accettazione:**

**Esame:**

**PAZIENTE:**

**Data di Nascita:**

**Provenienza:** U.O. CHIRURGIA GENERALE - AZIENDA OSPEDALIERO UNIVERSITARIA PISANA

**Medico richiedente:** DR. BUCCIANI

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**MATERIALE PERVENUTO:**

- 1) Retto-sigma
- 2) Trancia di sezione prossimale
- 3) Trancia di sezione distale

**ESAME MACROSCOPICO:**

- 1) Retto-sigma di 19 cm con neoplasia a placca della parete laterale sinistra e posteriore del retto di 2,2x2 cm a 1,5 cm di distanza dal margine di resezione rettale (TD1-3; TS1-3: macrosezioni). Linfonodi rettali (NR1-2). Linfonodi sigmoidei (NS1-3).
- 2) Trancia prossimale di 1 cm (A1-2).
- 3) Trancia distale di 0,6 cm (B1-2).

**DIAGNOSI:**

Tipo istologico: adenocarcinoma (TD1-3; TS1-3)

Grado istologico: moderatamente differenziato (G2).

Estensione dell'invasione tumorale: infiltrante il tessuto adiposo periviscerale.

Pattern di crescita tumorale: infiltrativo.

Invasione vascolare: assente.

Invasione perineurale: assente.

Tumor budding: presente.

Infiltrato linfocitario peritumorale: presente.

Infiltrato linfocitario intratumorale: presente.

Margini di resezione chirurgica prossimale (A1-2) e distale (B1-2) indenni da infiltrazione neoplastica.

Margine radiale non raggiunto dalla neoplasia (distanza minima 1,1 cm)

Stato dei linfonodi: dodici linfonodi perirettali (TD1; TD3; TS3; NR1-2) e quindici linfonodi perisigmoidei con iperplasia reattiva (NS1-3).

**yT3(G2)N0Mx**

**Grado di Quirke II** (escissione mesorettale moderata)

**Margine radiale indenne** (distanza minima 1,1 cm)

**TRG2** (sec. Dworack)



# La nostra casistica

242 casi di tumori del retto asportati con  
tecnica TME (da Marzo 2008 a Aprile 2014)

158 maschi

84 femmine

età media: 66 anni

**205** Quirke 3  
(84.7%)

**31** Quirke 2  
(12.8%)

**6** Quirke 1  
(2.5%)

13 pz con margine circonfferenziale raggiunto

# Conclusioni



- **IL TRATTAMENTO DEL CANCRO DEL RETTO È COMPLESSO E DEVE ESSERE AFFRONTATO SOLO NELL'AMBITO DEI GRUPPI ONCOLOGICI MULTIDISCIPLINARI**
- **LA CHIRURGIA DEL RETTO È COMPLESSA E DEVE ESSERE VALUTATA NEI RISULTATI INDIPENDENTEMENTE DALLA METODICA USATA**
- **LA LAPAROSCOPIA NON È INFERIORE ALL'OPEN NEI RISULTATI A BREVE TERMINE**

# Grazie per l'attenzione

